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Nuclear Management Company, LLC
Point Beach Nuclear Plant
6610 Nuclear Road
Two Rivers, WI 54241

NRC 2001-002

February 14, 2001

10 CFR 50.73

Document Control Desk
U.S. NUCLEAR REGULATORY COMMISSION
Mail Station P1-137
Washington, D.C. 20555

Ladies/Gentlemen:

DOCKETS 50-266 AND 50-301
LICENSEE EVENT REPORT 266/2001-001-00
TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENT FOR
RPS ACTUATION SYSTEM LOGIC TESTING NOT SATISFIED
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Enclosed is Licensee Event Report 266/2001-001-00 for the Point Beach Nuclear Plant, Units 1 and 2. This report is provided in accordance with 10 CFR 50.73(a)(2)(i)(B), as "Any operation or condition prohibited by the plant's Technical Specifications." This report describes the discovery during procedural reviews for the implementation of the Improved Technical Specifications that testing of the power range low power trip logic and the intermediate range high flux trip logic was not being conducted within 24 hours after reducing power below 10% after having operated in excess of 10% power for greater than the monthly surveillance frequency specified in TS Table 15.4.1-1, Item 44.

A new commitment is identified in the corrective action of this event report. The commitment is printed in italics.

Please contact us if you require additional information concerning this report.

Sincerely,

A. J. Cayia
Plant Manager

Enclosure

CWK/jlk

cc: NRC Resident Inspector
NRC Regional Administrator
PSCW
INPO Support Services

IE22

NRC FORM 366 (1-2001)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 6-30-2001

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
POINT BEACH NUCLEAR PLANT UNIT 1	05000266	1 OF 3

TITLE (4)

Technical Specification Surveillance Requirements for Testing RPS Actuation System Logic Not Satisfied

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
01	12	2001	2001	- 001	- 00	02	13	2001	PBNP Unit 2	05000301
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	1
POWER LEVEL (10)	100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)

20.2201(b)		20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
20.2201(d)		20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)
20.2203(a)(1)		50.36(c)(1)(i)(A)	50.73(a)(2)(iv)(A)	73.71(a)(4)
20.2203(a)(2)(i)		50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)
20.2203(a)(2)(ii)		50.36(c)(2)	50.73(a)(2)(v)(B)	OTHER Specify in Abstract below or in NRC Form 366A
20.2203(a)(2)(iii)		50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	
20.2203(a)(2)(iv)		50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)	
20.2203(a)(2)(v)	X	50.73(a)(2)(i)(B)	50.73(a)(2)(vii)	
20.2203(a)(2)(vi)		50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)	
20.2203(a)(3)(i)		50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Charles Wm. Krause	(920) 755-6809

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

This report describes the discovery on January 12, 2001, while conducting procedural reviews for the implementation of the Improved Technical Specifications, that testing of the power range low power trip logic and the intermediate range high flux trip logic was not being conducted within 24 hours after reducing power below 10% after having operated in excess of 10% power for greater than the monthly surveillance frequency specified in TS Table 15.4.1-1, Item 44. Although the surveillance testing of these trip logics was being accomplished prior to the next unit start up, and thus established the operability of the trips, a more conservative interpretation of the TS would have been to complete this surveillance within 24 hours of proceeding below 10% of full power. However, since the power range low power trip logic and intermediate range high flux trip logic testing can be accomplished at power, our corrective action will be to revise the plant procedures to require the monthly logic testing. The event had no impact on the health and safety of the public or the plant staff.

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TEXT *(If more space is required, use additional copies of NRC Form 366A)* (17)

Event Description:

The Point Beach Nuclear Plant (PBNP) Technical Specification Table 15.4.1-1, "Minimum Frequencies for Checks, Calibrations and Test of Instrument Channels," Item No. 44, "Reactor Protection System and Emergency Safety Feature Actuation System Logic," requires monthly testing of those logic trains except during periods of refueling shutdown. Among the reactor protection system (RPS)[JE] features tested under this specification are the logics for the nuclear instrumentation [IG] power range low power trip (PR-LOW), which actuates at approximately 20% of full power, and the intermediate range nuclear instrumentation high flux trip (IR HIGH), which actuates at the equivalent of approximately 25% power. These trips provide protection against reactivity excursions during subcritical to low power operation to prevent Departure of Nucleate Boiling (DNB) in the core. When two out of four power range channels are above approximately 10% power, a permissive bistable, known as the P-10 permissive, deenergizes so that both the PR-LOW and IR-HIGH trips may be manually blocked. When three out of four of the power range channels are below the 10% P-10 permissive setpoint, those trips are automatically reinstated.

Prior to reactor startups, the RPS permissives and trip logic, including the P-10 permissive and the PR-HIGH and IR-LOW, are tested using ICP 2.15, "Reactor Protection System Permissives and Trip Logic Pre-startup Test," and ICP 2.17, "Reactor Protection System Trip Logic Post Refueling Test." TS Table 15.3.5-2, items 2a. and 3. allows continuous operation once the unit is operating at above 10% power and the PR-LOW and IR-HIGH trips have been blocked. Therefore when this permissible bypass condition has been met, the PR-LOW and IR-HIGH logic does not have to be operable. Under those conditions, the monthly surveillance test for these logics has not been conducted.

When shutting down the unit after having operated at greater than 10% full power (the P-10 permissive block point) for more then 38 days, (based on 1.25 times that specified monthly surveillance frequency), at the point in the shutdown when the reactor power goes below 10% and the P-10 bistables have energized, the monthly surveillance test for the PR-LOW and IR-HIGH trip logic is technically over due since the surveillance test for these logics have not been completed within the past month. TS 15.4.0.3 specifies that when a surveillance was not performed within its specified frequency, the requirement to declare the system or component inoperable may be delayed up to 24 hours to allow for performance of the surveillance. It has been our position that since the unit is in the process of shutting down, and this action is consistent with the required operator action if the minimum number of channels for TS Table 15.3.5-2 items 2a and 3. has not been met, it is not necessary to perform the overdue surveillance at that time. The decision to not perform this TS surveillance has been acceptable because the unit has been proceeding to hot shutdown; however, the missed surveillance has not been formally declared or logged. During the subsequent unit start ups, the RPS logic, including the PR-LOW and IR-HIGH trip logic, has been tested and verified using appropriate plant procedures. That testing is used to confirm the operability of these trips prior to taking the reactor critical, at which point it is necessary to have the RPS in service.

We are hereby conservatively reporting that during shutdowns from operations at power for greater than 38 days, our past practice had resulted in a condition prohibited by the Technical Specification, that is, a missed surveillance; and should have been reported in the past, under 10 CFR 50.73(a)(2)(i)(B). Note that under the guidance of NUREG 1022, Revision 2, and the revised reporting requirements of 10 CFR 50.73(a)(2)(i)(B)(2), which became effective on January 23, 2001, a late surveillance would not be reportable under the revised reportability rules, provided the equipment is shown to be operable once the surveillance is accomplished,.

Cause:

This condition was identified on January 12, 2001, during a review of procedural changes necessary for implementation of the Improved Technical Specifications (ITS). (The NRC is presently reviewing our ITS submittal. We are anticipating implementation of the ITS later this year.) That review identified that although the testing of the logic for the PR-LOW and IR-HIGH trips can be conducted at power, the monthly testing was not being done when power levels were above 10% full power and those trips were blocked. A condition report (CR 01-0118) was initiated to document

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TEXT *(If more space is required, use additional copies of NRC Form 366A)* (17)

that concern. The cause of this condition was a conservative change in interpretation of the existing TS requirement concerning monthly testing of the PR-LOW and IR-HIGH trip logic. That interpretation now recognizes that when the PR-LOW and IR-HIGH trip logic testing has not been completed within the past 38 days, then once reactor power is taken below 10% of full power, a missed surveillance should be declared. However, since we have recognized that the PR-LOW and IR-HIGH trip logic can be tested at power, we intend to perform this logic testing on a monthly basis so that the potential for missed surveillance of these logics will be avoided.

Corrective Actions:

The logic testing for the PR-LOW and IR-HIGH trip logic will be tested on a monthly basis. Procedures 1(2) ICP 2.3 A and B and 2.23 A and B, "Reactor Protection System Logic Monthly Surveillance Test," are being revised to assure this logic testing is done.

Safety Assessment:

The function of the PR-LOW and IR-HIGH trip logic is to protect against reactivity excursions during subcritical to low power operations. When the reactor thermal power is below the 10% of full power setpoint, the nuclear instrumentation intermediate range high flux trip and the low setting for the power range nuclear instrumentation high flux trips are active. Although the failure to perform a surveillance for a system or component within the specified frequency, including the provisions of TS 15.4.0.3, results in the declaration of that system or component being inoperable; if the subsequent performance of that surveillance determines that the system or component is capable of performing its specified safety function, the actual safety impact of that missed surveillance becomes negligible. In the specific conditions which resulted in missed surveillances as discussed in this report, subsequent testing of the logic for the PR-LOW and IR-HIGH trips was conducted prior to the next unit startup. That testing confirmed that the safety function of those devices would be satisfied and the equipment remained operable. Accordingly, we have concluded that the health and safety of the public and the plant staff was not impacted by this event. We have further concluded that the missed surveillances did not result in a loss of the capability of these trips to perform their safety function and; therefore, this event did not result in a safety system functional failure.

Similar Occurrences:

A review of recent LERs (past two years) identified the following events which involved missed or incomplete technical specification surveillances.

LER NUMBER	Title
266/1999-003-00	Technical Specification Surveillance Requirement for ECCS and Containment Spray Not Fully Implemented
301/1999-003-00	Missed Technical Specification Surveillance Test of Emergency DC Lighting
266/2000-002-00	Technical Specification Surveillance Requirement to Verify ECCS Valve Position Not Fully Implemented